

as may be desired, and as these journals only bear the weight of the frame there is very little friction upon them, and consequently very little oil will be required, which in the management of a railroad is a heavy item in its expenditures.

H H, &c., represent the doors of the cylinders, which may extend the whole length of the cylinder, and which are hinged in the usual manner and open outward, and through which the cylinders are loaded and unloaded. When the cylinders are filled, the doors are closed and firmly secured by a rod I, running through the rims on the cylinder, but may be fastened in any other substantial manner. A brake may also be applied by forcing a wedge-shaped piece of timber between the rims on the cylinders by means of a lever, as in cars of ordinary construction.

Among the advantages this mode of constructing cars possesses over those of ordinary construction are, first, that the large diameter of the wheels will present less obstruction or resistance to the locomotive; second, removing the weight of the load from the journals and throwing it directly upon the wheels saves the wear of the journals by the friction upon them, and also the use of oil, which is a heavy item in the expenditures in using ordinary cars; third, the material conveyed in tight cylinders revolving at the usual velocity attained upon railroads will by centrifugal force remain perfectly quiet, giving a steady

motion to the cars, and losing by abrasion three-fourths less than is usually allowed on coal carried in ordinary cars, as has been proven by actual experiment, (besides what coal-dust does accumulate in the cylinder will be retained there,) and entirely preventing the dust from finding its way into the boxes and cutting or otherwise wearing away the journals.

Having thus fully described my invention, I wish it to be distinctly understood that I do not claim the use of cylinders for conveying material upon common roads, as this has been done heretofore; but

What I do claim as of my invention, and desire to secure by Letters Patent, is—

The combination of a partition or partitions with a metallic cylinder or cylinders provided with flanged rims, as herein described, for the purpose of carrying material in bulk on rail or other roads where high velocities are attained, said material being held in place by centrifugal force while in motion and prevented from falling or rolling in the cylinder by the partition or partitions while in the act of stopping or starting, as herein fully described and shown, or by any other means essentially the same.

LAURENCE MYERS.

Witnesses:

H. DONN,

A. B. STOUGHTON.